

Midterm practice: Factor quadratic, $a = \text{prime}$.

You should try to factor the expression. I recommend guess-and-check. If that is giving you too much trouble, try figuring out how you can use quadratic formula.

1. If n is an integer and $(x + n)$ is a factor of polynomial $3x^2 - 10x + 3$ then what is the value of n ?
2. If n is an integer and $(x + n)$ is a factor of polynomial $7x^2 + 18x + 8$ then what is the value of n ?
3. If n is an integer and $(x + n)$ is a factor of polynomial $7x^2 - x - 6$ then what is the value of n ?
4. If n is an integer and $(x + n)$ is a factor of polynomial $3x^2 + 7x + 2$ then what is the value of n ?
5. If n is an integer and $(x + n)$ is a factor of polynomial $3x^2 - 7x - 10$ then what is the value of n ?
6. If n is an integer and $(x + n)$ is a factor of polynomial $2x^2 + 9x - 5$ then what is the value of n ?
7. If n is an integer and $(x + n)$ is a factor of polynomial $7x^2 + 9x + 2$ then what is the value of n ?
8. If n is an integer and $(x + n)$ is a factor of polynomial $7x^2 + x - 6$ then what is the value of n ?
9. If n is an integer and $(x + n)$ is a factor of polynomial $2x^2 - 5x - 12$ then what is the value of n ?
10. If n is an integer and $(x + n)$ is a factor of polynomial $5x^2 - 4x - 9$ then what is the value of n ?
11. If n is an integer and $(x + n)$ is a factor of polynomial $5x^2 - 12x + 7$ then what is the value of n ?
12. If n is an integer and $(x + n)$ is a factor of polynomial $2x^2 - 3x - 2$ then what is the value of n ?
13. If n is an integer and $(x + n)$ is a factor of polynomial $5x^2 - 19x + 18$ then what is the value of n ?
14. If n is an integer and $(x + n)$ is a factor of polynomial $7x^2 - x - 8$ then what is the value of n ?
15. If n is an integer and $(x + n)$ is a factor of polynomial $7x^2 + 3x - 4$ then what is the value of n ?
16. If n is an integer and $(x + n)$ is a factor of polynomial $2x^2 + x - 15$ then what is the value of n ?
17. If n is an integer and $(x + n)$ is a factor of polynomial $2x^2 + 5x - 3$ then what is the value of n ?
18. If n is an integer and $(x + n)$ is a factor of polynomial $2x^2 + 9x + 10$ then what is the value of n ?
19. If n is an integer and $(x + n)$ is a factor of polynomial $3x^2 + 5x - 8$ then what is the value of n ?
20. If n is an integer and $(x + n)$ is a factor of polynomial $7x^2 - 15x + 2$ then what is the value of n ?

5. Factors as $(x+1)(3x-10)$ so $n=1$
16. Factors as $(x+3)(2x-5)$ so $n=3$
20. Factors as $(x-2)(7x-1)$ so $n=-2$
9. Factors as $(x-4)(2x+3)$ so $n=-4$
11. Factors as $(x-1)(5x-7)$ so $n=-1$
14. Factors as $(x+1)(7x-8)$ so $n=1$
8. Factors as $(x+1)(7x-6)$ so $n=1$
18. Factors as $(x+2)(2x+5)$ so $n=2$
10. Factors as $(x+1)(5x-9)$ so $n=1$
1. Factors as $(x-3)(3x-1)$ so $n=-3$
13. Factors as $(x-2)(5x-9)$ so $n=-2$
3. Factors as $(x-1)(7x+6)$ so $n=-1$
2. Factors as $(x+2)(7x+4)$ so $n=2$
7. Factors as $(x+1)(7x+2)$ so $n=1$
12. Factors as $(x-2)(2x+1)$ so $n=-2$
17. Factors as $(x+3)(2x-1)$ so $n=3$
4. Factors as $(x+2)(3x+1)$ so $n=2$
15. Factors as $(x+1)(7x-4)$ so $n=1$
19. Factors as $(x-1)(3x+8)$ so $n=-1$
6. Factors as $(x+5)(2x-1)$ so $n=5$